IN THE CLAIMS

Please cancel claims 5, 13, and 21 and amend claims 1, 9, and 17 as follows:

1. (CURRENTLY AMENDED) A system for measuring phase noise, comprising:

a tuner for tuning a signal from a [[device]] low-noise block converter (LNB) and converting the tuned signal to a baseband signal;

at least one analog-to-digital converter (ADC) for capturing data from the baseband signal;

a timing processor for acquiring and tracking symbol timing of the captured data of the baseband signal;

a carrier processor for determining unwrapped phase history data from the tracked symbol timing;

a line fitting processor for determining a linear phase by fitting a straight line to the unwrapped phase history data; and

a subtractor for subtracting the linear phase from the phase history data to produce a residual phase of the carrier, wherein the residual phase of the carrier is substantially a performance measurement of the LNB.

2. (ORIGINAL) The system of claim 1, further comprising a fast Fourier transform (FFT) processor for determining a phase noise spectrum from the residual phase from the subtractor.

3. (ORIGINAL) The system of claim 2, wherein the phase noise spectrum is scaled to dBc/KHz.

4. (ORIGINAL) The system of claim 1, wherein the line fitting processor performs a minimum mean square (MMS) operation on the phase history data to determine the linear phase.

5. (CANCELED)

6. (ORIGINAL) The system of claim 1, wherein the signal comprises a satellite television signal.

7. (ORIGINAL) The system of claim 1, wherein the captured data comprises a length based upon a lowest frequency of interest.

1. (ORIGINAL) The system of claim 1, comprising more than one ADC and wherein the captured data comprises in-phase (I) and quadrature (Q) components.

9. (CURRENTLY AMENDED) A method for measuring phase noise, comprising the steps of:

tuning a signal from a [[device]] low noise block converter (LNB) and converting the signal to a baseband signal;

capturing data from the baseband signal;

acquiring and tracking the captured data of the baseband signal to determine symbol timing tracked data;

determining unwrapped phase history from the symbol timing tracked data;

fitting a straight line to the unwrapped phase history data to determine a linear phase; and

subtracting the linear phase from the phase history data to produce a residual phase of the signal, wherein the residual phase is substantially a performance measurement of the LNB.

10. (ORIGINAL) The method of claim 9, further comprising determining a phase noise spectrum from the residual phase with a fast Fourier transform (FFT) processor.

11. (ORIGINAL) The method of claim 10, further comprising scaling the phase noise spectrum to dBc/KHz.

12. (ORIGINAL) The method of claim 9, wherein fitting the straight line comprises performing a minimum mean square (MMS) operation on the phase history data to determine the linear phase.

13. (CANCELED)

14. (ORIGINAL) The method of claim 9, wherein the signal comprises a satellite television signal.

15. (ORIGINAL) The method of claim 9, wherein the captured data comprises a length based upon a lowest frequency of interest.

16. (ORIGINAL) The method of claim 9, comprising more than one ADC and wherein the captured data comprises in-phase (I) and quadrature (Q) components.

17. (CURRENTLY AMENDED) A system for measuring phase noise, comprising:

means for tuning a signal from a [[device] low noise block converter (LNB) and converting the signal to a baseband signal;

means for capturing data from the baseband signal;

means for acquiring and tracking symbol timing of the captured data of the baseband signal;

means for determining unwrapped phase history data from the tracked symbol timing;

means for determining a linear phase by fitting a straight line to the unwrapped phase history data; and

means for subtracting the linear phase from the phase history data to produce a residual phase of the signal, wherein the residual phase is substantially a performance measurement of the LNB.

18. (PREVIOUSLY PRESENTED) The system of claim 17, further comprising means for determining a phase noise spectrum from the residual phase with a fast Fourier transform (FFT) processor.

19. (PREVIOUSLY PRESENTED) The system of claim 18, further comprising means for scaling the phase noise spectrum to dBc/KHz.

20. (PREVIOUSLY PRESENTED) The system of claim 17, wherein the means for fitting the straight line comprises means for performing a minimum mean square (MMS) operation on the phase history data to determine the linear phase.

21. (CANCELED)

22. (PREVIOUSLY PRESENTED) The system of claim 17, wherein the signal comprises a satellite television signal.

23. (PREVIOUSLY PRESENTED) The system of claim 17, wherein the captured data comprises a length based upon a lowest frequency of interest.

24. (PREVIOUSLY PRESENTED) The system of claim 17, comprising more than one ADC and wherein the captured data comprises in-phase (I) and quadrature (Q) components.